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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,403	09/08/2003	Martin J. Oosterhuis	034726/268300	1730
1342	7590	08/01/2006	EXAMINER	
PHILLIPS LYTTLE LLP INTELLECTUAL PROPERTY GROUP 3400 HSBC CENTER BUFFALO, NY 14203-3509			PAK, SUNG H	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 08/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/657,403

Applicant(s)

OOSTERHUIS ET AL.

Examiner

Sung H. Pak

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 13-24 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 7-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/20/06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

The drawings were received on 4/20/2006. These drawings are accepted.

### ***Response to Amendment***

Applicant's amendment filed 4/20/2006 has been entered. All pending claims have been carefully reconsidered in view of the amendment and the accompanying arguments for patentability.

### ***Response to Arguments***

Regarding claims 7-12, applicant's arguments presented in the amendment filed 4/20/2006 has been carefully studied by the examiner. However, the arguments are deemed moot in view of the new ground of rejection furnished in this office action. The new ground of rejection is in response to the claim amendment.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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Claims 7-9, 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Townsend et al (US 6,782,160 B2).

Townsend reference discloses an optical device with limitations set forth in the claims, including: a reversion prism having opposite end faces intersected by an axis (Fig. 6; better shown in Fig. 2, wherein the 'axis' is indicated by a dotted line); each of said end faces being disposed at a nonorthogonal angle relative to said axis (Fig. 6); and interface optical elements ('74' Fig. 6) having mating surfaces engaging said end faces ('52' Fig. 6), each of said interface optical elements having an optically-flat surface that is orthogonal to said axis (the surface abutting the terminal elements 62's);

wherein said reversion prism has an index of refraction that is greater than an index of refraction of said interface optical elements (col. 6, ll. 3-14);

wherein said reversion prism is a trapezoidal prism (Fig. 6; see also Fig. 2);

further comprising a housing defining an internal cavity ('54' Fig. 6); in which said reversion prism and said internal optical elements are disposed, wherein said internal cavity is adapted to be at least partially filled with a fluid, and wherein the optically-flat surface of each interface optical element is exposed to said fluid (since the interface optical element IS fluid, this limitation is also inherently met).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 10, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Townsend et al (US 6,782,160 B2).

Townsend reference discloses an optical device with nearly all limitations set forth in the claims, except it does not explicitly teach that the interface optical element may be a prism, instead of fluid as disclosed.

However, the use of a triangular prism is well known and common in the optical rotary joint art. The use of a solid prism instead of fluid as disclosed in Townsend would have been considered advantageous and desirable to one of ordinary skill in the art at the time the invention was made because solid prisms do not require liquid-tight and well sealed housing, as is required for Townsend's liquid interface optical element. Such arrangement would lower the overall cost of device manufacturing. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the device of Townsend to have a solid prism instead of liquid interface optical elements.

***Allowable Subject Matter***

Claims 1-6 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Applicants' arguments for patentability of pending claims 1-6 are convincing. Although a fiber optic rotary joint having a reversion prism is well known in the art, as discussed in the previous Office Action, none of the prior art fairly teaches or suggests such fiber optic rotary joint further utilizing a fluid having a variable index of refraction, in conjunction with interface optical element configured to transmit optical signals along an optical axis of the rotary joint device without being refracted by the fluid with variable index of refraction as claimed.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

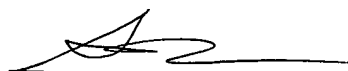
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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sung H. Pak whose telephone number is (571) 272-2353. The examiner can normally be reached on Monday- Friday, 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571)272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Sung H. Pak  
Primary Patent Examiner  
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